

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An exhaust sensor control system for an exhaust sensor mounted in an exhaust path of an internal combustion engine, wherein said exhaust sensor includes a sensor element for generating an output in accordance with the status of an exhaust gas and a heater for heating said sensor element, the exhaust sensor control system comprising:

heater control means for continuing power supply control over said heater until the exhaust gas temperature at the exhaust sensor drops below 80°C after the internal combustion engine is stopped.

2. (Original) The exhaust sensor control system according to claim 1, further comprising element temperature acquisition means for acquiring the temperature of said sensor element, wherein said heater control means includes after-stop power supply control means for controlling said heater with a predetermined temperature between 300°C and 500°C set as a target temperature for said sensor element after the internal combustion engine is stopped.

3. (Previously Presented) The exhaust sensor control system according to claim 1, wherein said heater control means comprises

stop moment exhaust temperature estimation means, which estimates the exhaust path temperature at a stop moment of the internal combustion engine, and

temperature condition determination means, which determines whether the exhaust path temperature is below 80°C based on the exhaust path temperature at said stop moment and the elapsed time after said internal combustion engine is stopped.

4-10. (Canceled)